

**FORMING STRUCTURES THAT INCLUDE A RELAXED OR
PSEUDO-RELAXED LAYER ON A SUBSTRATE**

5

ABSTRACT

The invention relates to methods of forming a relaxed or pseudo-relaxed layer on a substrate, wherein the relaxed layer may be a semiconductor material. An implementation of the method includes

10 growing an elastically stressed semiconductor material layer on a donor substrate, forming a glassy layer of a viscous material and bonding it to the stressed layer, removing a portion of the donor substrate to form a structure that includes the glassy layer, the stressed layer and a surface layer of donor substrate, and then heat treating the structure at a

15 temperature of at least a viscosity temperature of the glassy layer to relax the stressed layer. The glassy layer can also be bonded to a receiving substrate so that the structure can be transferred thereto. Implementations also relate to structures obtained from the method.

20

779540 v1